

comprising the steps of:

- (i) isolating RNA from a cell sample;
- (ii) hybridizing the RNA with an isolated full-length, wild-type RB cDNA probe; and
- (iii) detecting the presence of an abnormal RB RNA, the presence of a normal RB RNA or absence of an RB RNA, wherein the presence of an abnormal RB RNA or the absence of an RB RNA indicates a mutated RB gene.

24. (Amended) An isolated nucleic acid molecule comprising a nucleotide sequence encoding a full length human wild type retinoblastoma protein, as shown in exons 1-27, inclusive, in FIG. 6.

25. (Amended) The isolated nucleic acid molecule of claim 24, wherein the nucleotide sequence is as shown in exons 1-27, inclusive, in FIG. 6.

26. (Amended) An isolated nucleic acid molecule [comprising a nucleotide sequence] encoding [full-length] retinoblastoma protein.

27. (Amended) The nucleic acid molecule of claim 26, wherein said [full-length] retinoblastoma protein has the amino acid sequence encoded by [of] exons 1-27, inclusive, as shown in FIG. 6.

28. The nucleic acid molecule of claim 26, wherein said nucleic acid has an open-reading frame, and wherein the 5' end of said open-reading frame is shown at nucleotide position four of the nucleotide sequence shown in FIG. 5, and the 3' end of said open-reading frame is shown at nucleotide position 2784 of the nucleotide sequence shown in FIG. 5.

29. The nucleic acid molecule of claim 26, wherein said retinoblastoma protein is normal retinoblastoma protein.